

Serial No.: 09/926,494  
Atty. Docket No.: P67265US0

### **REMARKS**

The Office Action mailed September 22, 2004, has been carefully reviewed and Applicants note with appreciation the identification of allowed subject matter.

By this Amendment, claim 40 has been canceled, claims 9, 11, 16, 17, 19, 35 and 41 have been amended, and new claims 42-45 have been added. Thus, claims 4, 7, 9-22, 26-30, 33-39, and 41-45 are pending in the application. Claim 33, 35 and 41 are in independent form.

The Examiner rejected claims 9, 11, 16, 17 and 19 under 35 U.S.C. 112, second paragraph, as being indefinite. By this Amendment, Applicants have corrected the informalities noted by the Examiner and reconsideration and withdrawal of the rejection are requested.

The Examiner rejected claims 4, 9-20, 35 and 38-41 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,476,550 to Oda et al. ("Oda"), and rejected claims 28-30 and 41 under 35 U.S.C. 102(a) as being anticipated by WO 98/25313 to Barnes et al. ("Barnes"). Under 35 U.S.C. 103(a), the Examiner rejected claims 7, 21, 22, 26 and 27 as being unpatentable over Oda, rejected claim 26 as being unpatentable over Barnes, and rejected claim 27 as being unpatentable over Barnes in view of U.S. Patent No. 6,060,826 to Ueda et al. ("Ueda"). The Examiner objected to claims 36 and 37 as being dependent on a rejected base claim but stated that claims 36 and 37 would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. Claims 33 and 34 are allowed.

While Applicants appreciate the identification of allowed and additionally allowable subject matter, with the amendments set forth herein Applicants present independent claims 35 and 41 as also being in condition for allowance.

More particularly, as set forth herein, each of claims 35 and 41 has been amended to set forth a light-emitting diode (LED) comprising a plurality of layers overlying a transparent substrate that includes a corrugated surface forming a grating, and a method of making the same, in which the layers include a transparent conductive anode overlying the corrugated surface, a light emitting layer overlying the conductive anode, and at least one electrode layer overlying the light emitting layer. Further, as substantially formerly set forth in claim 40, at least one of these three layers (the transparent conductive anode, the light emitting layer and the at least one electrode layer) includes a *corrugated surface* for manipulating spontaneous emission and propagation of light by coupling non-radiative waveguide modes to far-field radiation. This is not shown in the prior art and, while the Examiner listed claim 40 as being a rejected claim in view of Oda, there is no explanation provided as to the basis within the Oda patent for this rejection. Consequently, Applicants request the Examiner's reconsideration of claims 35 and 41 as amended, and further in view of the following remarks.

As just summarized, the LED of the present invention has a substrate with a corrugated surface and layers including a transparent conductive anode overlying the corrugated surface, a light emitting layer overlying the conductive anode, and at least one electrode layer overlying the light emitting layer. At least one of these layers also includes a corrugated surface,

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and the layers are deposited such that the corrugated surface structure propagates through the device layers to improve the coupling of light. This is not shown or suggested by Oda which instead discloses a striped anode structure (see column 5, lines 8-28). Hence, the present invention is structurally different from Oda.

The method by which the LED according to the present invention is made has also been clarified in claim 41 which, in response to the Examiner's previous noting of the periodic microstructure means not constituting a positive method limitation, now sets forth the limitations in proper method format entitled to patentable weight. The Examiner's reconsideration is therefore requested.

In sum, none of the prior art references disclose an LED, or a method of fabricating an LED, having a substrate with a corrugated surface and the specified layered structure disposed thereon. The attendant advantages inherent in the present invention over the prior art have been fully set forth in previous submissions to the U.S. Patent and Trademark Office, with the Examiner being invited to reconsider in particular Applicants' Amendment filed on November 12, 2003, for a fuller discussion thereof.

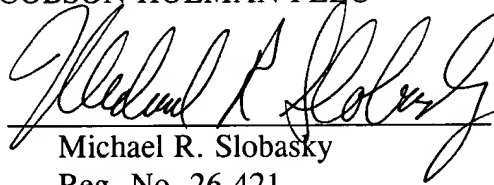
With the foregoing amendments and remarks, Applicants present all of the pending claims as being in condition for allowance, claims 35 and 41 for the reasons already discussed, and claims 4, 7, 9-22, 26-30, 36-39 and 42-45 as properly dependent on an allowable base claim. Favorable reconsideration and allowance of the application is therefore respectfully requested.

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Should the Examiner have any questions or outstanding issues remaining after reviewing this Amendment, the Examiner is cordially invited to telephone the undersigned attorneys so that a prompt Notice of Allowance may be received.

Respectfully submitted,

JACOBSON HOLMAN PLLC

By   
Michael R. Slobasky  
Reg. No. 26,421

400 Seventh St., NW  
Washington, D.C. 20004  
(202) 638-6666  
Date: December 22, 2004  
MRS:SCB  
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